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Dated: September 17, 2007 Signature: Jeanne M. Brashear/56,301  
(Jeanne M. Brashear)

Docket No.: 06005/36687A  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Letters Patent of:  
McCarty et al.

Patent No.: 6,935,370

Issued: August 30, 2005

For: FLUID PRESSURE REDUCTION DEVICE

**SECOND REQUEST FOR CERTIFICATE OF CORRECTION  
PURSUANT TO 37 CFR 1.323**

Attention: Certificate of Correction Branch  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This request is a follow-up to the Request filed on September 1, 2006 and in response to correspondence from the U.S. Patent and Trademark Office dated November 6, 2006.

Patentee respectfully requests a Certificate of Correction to be issued for the above-identified U.S. Patent correcting the patent as noted on the attached "Certificate of Correction" form PTO/SB/44. A duplicate of the form is attached hereto.

Errors in the patent can be verified by reference to the application as follows:

APPLICATION PG. NO.	APPLICATION LINE NO.	COLUMN NO.	LINE NO.	ERROR
11	29	8	12-13	Applicant
12	9	8	27	Applicant
Amendment mailed 2/24/05, page 2, claim 32	N/A	9, claim 1	32	Applicant
Amendment mailed 2/24/05, pages 4-5, claims 55 and 58	N/A	10, claim 6	17-38	PTO

The errors now sought to be corrected are inadvertent typographical errors, the correction of which does not involve new matter or require reexamination. In the Office Action mailed October 18, 2004 (copy attached as Appendix A), claim 55 was indicated as being withdrawn for being drawn to a non-elected species. In the Action, the Examiner acknowledged the allowability of previously presented claim 34 upon inclusion of the subject matter recited in any base claim (i.e., claim 32). Applicants' amendment mailed January 18, 2005 (Copy attached as Appendix B) also indicated claim 55 as being withdrawn and new claim 58 was added. New claim 58 included the subject matter recited in previously presented claims 32 and 34 in accordance with the Examiner's acknowledgment of the allowability of claim 34. Applicants' response to the Notice of Non-Compliant Amendment mailed February 24, 2005 also indicated claim 55 as being withdrawn and new claim 58. The Notice of Allowability mailed April 20, 2005 (copy attached as Appendix C) improperly indicated claim 55 as being allowable. Consequently, claim 55 was printed in the eventual patent. It is clear from the record that claim 58 and not claim 55 should appear in the printed patent.

Transmitted herewith is a proposed Certificate of Correction effecting such amendment. Patentee respectfully solicits the granting of the requested Certificate of Correction.

At least one of the errors was found in the application as filed by the applicants. Accordingly, our check in the amount of \$100.00 covering the fee set forth in 37 CFR 1.20(a) is enclosed. The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 13-2855, under Order No. 06005/36687A. A duplicate copy of this paper is enclosed.

Dated: September 17, 2007

Respectfully submitted,

By: /Jeanne M. Brashear/56,301  
Jeanne M. Brashear  
MARSHALL, GERSTEIN & BORUN LLP  
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**UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION**Page 1 of 1

PATENT NO. : 6,935,370  
APPLICATION NO. : 10/795,831  
ISSUE DATE : August 30, 2005  
INVENTOR(S) : McCarty et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**In the Specification:**

At Column 8, lines 12-13 please insert --a-- immediately before "pressure"

At Column 8, line 27, please insert --to-- immediately before "enhance"

At Column 9, line 32, please delete "at at least" and insert --at least--

At Column 10, line 17, please delete claim 6 in its entirety and insert the following claim in its place:

--6. A fluid pressure reduction device comprising:

a plurality of stacked disks having a perimeter and a hollow center aligned along a longitudinal axis; and

each disk having first and second flow paths extending between the hollow center and the perimeter, the first flow path including an inlet section, an outlet section, and an intermediate section extending between the inlet and outlet sections, the second flow path having an inlet section, an outlet section, and an intermediate section extending between the inlet and outlet sections;

wherein the second flow path intermediate section and first flow path intermediate section cross at an intersection such that the first flow path includes a first ramp upstream of the intersection directed to a first plane and the second flow path includes a second ramp upstream of the intersection directed to a second plane, so that fluid flowing through the first and second flow paths creates shear forces at the intersection; and

wherein each of the first and second flow path intermediate sections includes a recovery zone downstream of the intersection.--

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Jeanne M. Brashear

MARSHALL, GERSTEIN & BORUN LLP

1

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Sears Tower

Chicago, Illinois 60606-6357

# **APPENDIX A**



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/795,831	03/08/2004	Michael Wildie McCarty	06005/36687A	1286

4743 7590 10/18/2004

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RECEIVED

OCT 22 2004

MARSHALL GERSTEIN

EXAMINER

FOX, JOHN C

ART UNIT PAPER NUMBER

3753

DATE MAILED: 10/18/2004

Docketed: 1-18-05

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/795,831

Applicant(s)

MCCARTY ET AL.

Examiner

John Fox

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 32-36 and 48-57 is/are pending in the application.
- 4a) Of the above claim(s) 48-57 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 32,33,35 and 36 is/are rejected.
- 7) ☒ Claim(s) 34 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

This action is responsive to the communication filed September 23, 2004.

Claims 48-54 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 9/23/2004.

Claims 55-57 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 9/23/2004.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 32-33, and 35-36 are rejected under 35 U.S.C. 102(b) as being anticipated by Porter.

Porter shows a stacked disc valve where each disc includes a flow path from the center to the outside. Referring to Figure 1, 42 can be read as a common inlet section, 40, 40a as the first and second outlet sections, and everything in between as the intermediate sections. The area marked 48 can be the intersection.

Claim 34 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


The claim recitations of ramps suggests an inclined plane structure which distinguishes over the art of record even if the recited first and second planes are the same.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references cited show disc type valves with a flow path in one disc only.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Fox whose telephone number is 703-308-2595. The examiner can normally be reached on Maximum Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherble can be reached on 703-308-1257. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
John Fox  
Primary Examiner  
Art Unit 3753



# **Notice of References Cited**

Application/Control No.

10/795,831

Applicant(s)/Patent Under  
Reexamination  
MCCARTY ET AL.

Examiner

John Fox

Art Unit

3753

Page 1 of 1

## **U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
<input checked="" type="checkbox"/>	A	US-4,079,754	03-1978	Porter, Don B.	138/42
<input checked="" type="checkbox"/>	B	US RE32,107	07-1986	Self, Richard E.	251/127
<input checked="" type="checkbox"/>	C	US-4,267,045 A	05-1981	Hoof, Robert G.	210/322
<input checked="" type="checkbox"/>	D	US-3,688,800 A	09-1972	Paul F. Hayner, et. al.	138/42
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

## **FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

## **NON-PATENT DOCUMENTS**

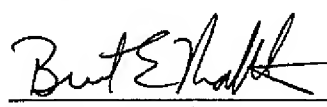
*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
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	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

# **APPENDIX B**

Appl. No. 10/795,831  
Amdt. dated January 18, 2005  
Reply to Office action of October 18, 2004

**IN THE UNITED STATES PATENT  
AND TRADEMARK OFFICE**

Appl. No.: 10/795,831	)	I hereby certify that this paper (or fee) is
	)	being deposited with the United States
Applicants: McCarty et al.	)	Postal Service, first class postage
	)	prepaid, addressed to: Mail Stop
Filed: March 8, 2004	)	Amendment, Commissioner for Patents,
	)	P.O. Box 1450, Alexandria, VA 22313-
Title: Fluid Pressure Reduction Device	)	1450.
	)	
TC/A.U.: 3753	)	January 18, 2005
	)	
Examiner: John C. Fox	)	
	)	Brent E. Matthias
Att. Docket No.: 06005/36687A	)	Reg. No.: 41,974

**AMENDMENT AND RESPONSE TO OFFICE ACTION**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This paper is submitted in response to the Office action having a mail date of  
October 18, 2004. Please amend the application and consider the remarks as follows:

**Amendments to the Claims** are reflected in the listing of claims which begins on page 2 of  
this paper.

**Remarks/Arguments** begin on page 6 of this paper.

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

32. (Currently amended) A fluid pressure reduction device comprising:  
a plurality of stacked disks having a perimeter and a hollow center aligned along a longitudinal axis; and  
each disk having at least a first and a second flow path paths, each flow path having a generally spiral shape and continuously extending between the hollow center and the perimeter, ~~the first flow path including wherein at least the first and second flow paths spiral in generally opposite directions and the opposing walls of each flow path gradually diverge, each flow path being further comprised of an inlet section, an outlet section, and an intermediate section extending between the inlet and outlet sections, the second flow path having an inlet section, an outlet section, and an intermediate section extending between the inlet and outlet sections;~~  
wherein the second each flow path ~~intermediate section and first flow path intermediate section cross~~ crosses at least one other flow path at an at least one intersection; and  
wherein each of the ~~first and second~~ flow path intermediate sections includes a recovery zone downstream of the intersection.

33. (Currently amended) The fluid pressure reduction device of claim 32, in which the ~~first and second~~ flow paths are directed toward the intersection at substantially the same plane, so that fluid flowing through the ~~first and second~~ each flow path paths undergoes an abrupt direction change at the intersection.

34. (Currently amended) The fluid pressure reduction device of claim 32, in which at least the first flow path includes a first ramp upstream of the intersection directed to a first plane and the second flow path includes a second ramp upstream of the intersection directed to a second plane, so that fluid flowing through at least the first and second flow paths creates shear forces at the intersection.

35. (Currently amended) The fluid pressure reduction device of claim 32, in which ~~the first flow path inlet section and the second flow path inlet section are integrally provided~~ as a common inlet section provides fluid entry for at least the first flow path and second flow path.

36. (Previously presented) The fluid pressure reduction device of claim 35, in which the common inlet section is aligned along a radial disk reference line extending from the axis to the common inlet section so that substantially equal volumes of fluid enter the first and second flow paths.

37-47. (Canceled).

48. (Withdrawn) A method of assembling a fluid pressure reduction device, comprising:

forming a plurality of disks having at least one flow path extending between a hollow center and a perimeter of the disk, each flow path including an inlet section, an outlet section, and an intermediate section extending between the inlet and outlet sections, the flow path dividing the disk into at least first and second blank portions, each disk further including a first bridge portion extending between the first and second blank portions;

stacking the disks along an axis;

securing the stacked disks together to form a stacked disk assembly;

removing the first bridge portion of each disk in the stacked disk assembly.

49. (Withdrawn) The method of claim 48, in which the first bridge portion comprises an inner ring portion extending about the interior portion of the disk.

50. (Withdrawn) The method of claim 48, in which the first bridge portion comprises an outer ring portion extending about the perimeter of the disk.

51. (Withdrawn) The method of claim 48, in which the first bridge portion comprises a tab extending between the first and second blank portions.

52. (Withdrawn) The method of claim 48, in which the disk further includes a second bridge portion, and in which the method further comprises the step of removing the second bridge portion of each disk in the stacked disk assembly.

53. (Withdrawn) The method of claim 52, in which the first bridge portion comprises an inner ring portion extending about the interior portion of the disk, and the second disk portion comprises an outer ring portion extending about the perimeter of the disk.

54. (Withdrawn) The method of claim 52, in which the first and second bridge portions comprise first and second tabs extending between adjacent blank portions.

55. (Withdrawn) A fluid pressure reduction device comprising:  
a plurality of stacked disks having a perimeter and a hollow center aligned along a longitudinal axis; and

the plurality of stacked disks defining at least one flow path extending between the hollow center and the perimeter, the flow path including an inlet section, an outlet section, and an intermediate section having a generally spiral shape and extending between the inlet and outlet sections, the flow path including a pressure reducing structure and a recovery zone positioned immediately downstream of the pressure reducing structure;

wherein a first disk of the plurality of stacked disks includes the inlet section and an upstream portion of the intermediate section, and a second disk of the plurality of stacked disks located adjacent the first disk includes the outlet section and a downstream portion of the intermediate section, the intermediate section upstream portion fluidly communicating with the intermediate section downstream portion.

56. (Withdrawn) The fluid pressure reduction device of claim 55, in which pressure reducing structure comprises a pair of abrupt direction changes in flow path as the intermediate section transitions from the first disk to the second disk, and in which the recovery zone is positioned immediately downstream of the pair of abrupt direction changes.

57. (Withdrawn) The fluid pressure reduction device of claim 55, in which opposing walls of the flow path intermediate section gradually diverge from one another as the flow path intermediate section advances from the inlet section to the outlet section.

58. (New) A fluid pressure reduction device comprising:

a plurality of stacked disks having a perimeter and a hollow center aligned

along a longitudinal axis; and

each disk having first and second flow paths extending between the hollow center and the perimeter, the first flow path including an inlet section, an outlet section, and an intermediate section extending between the inlet and outlet sections, the second flow path having an inlet section, an outlet section, and an intermediate section extending between the inlet and outlet sections;

wherein the second flow path intermediate section and first flow path intermediate section cross at an intersection such that the first flow path includes a first ramp upstream of the intersection directed to a first plane and the second flow path includes a second ramp upstream of the intersection directed to a second plane, so that fluid flowing through the first and second flow paths creates shear forces at the intersection; and

wherein each of the first and second flow path intermediate sections includes a recovery zone downstream of the intersection.

REMARKS

Previously, claims 32-36 and 48-57 were presented for review. In response to the prior Office action and election requirement dated September 20, 2004, Applicants elected for examination on the merits, without traverse, the claims corresponding to Group I, and specifically, Species H illustrated in Figure 8. Accordingly, Applicants acknowledge that claims 48-57 are withdrawn from consideration, leaving claims 32-36. By way of this amendment, claims 32-35 have been amended to more precisely recite Applicants' invention. Additionally, Applicants are appreciative of the Examiner's comments regarding the allowability of previously presented claim 34 upon inclusion of the subject matter recited in any associated base claim and any intervening claims. As such, new independent claim 58 has been added and includes the subject matter of independent claim 32 and dependent claim 34. Applicants submit that no new matter has been added and no new issues are presented that require new searches. As such, Applicants submit that new claim 58 is allowable as the new claim follows the Examiner's suggestions for arriving at allowable subject matter.

Further, Applicants do not intend to abandon the scope of the non-elected claims as originally filed or as withdrawn by the Examiner in the present Office action, but may pursue the remaining claims, either by petition for further review or in a divisional application. Accordingly, claims 32-36 and 58 are presently pending. Based upon the foregoing amendments and following comments, Applicants respectfully request reconsideration and allowance of the application.



### 35 U.S.C. 102(b) Rejections

Claims 32-33 and 35-36 have been rejected under 35 U.S.C. 102(b) as being anticipated by Porter (USP 4,079,754). Applicants respectfully traverse this rejection.

As now amended, independent claim 32 recites a fluid pressure reduction device comprising a plurality of stacked disks with *at least a first and a second flow path having a generally spiral shape and continuously extending* between the hollow center and the perimeter wherein the flow paths include *gradually diverg[ing] opposing walls*. Most significantly, Applicants' invention, as now claimed, teaches "counter-rotating" spirals that intersect at at least one point along the flow path. *See* Figure 8 (providing six flow paths that emanate from three common inlets with three flow paths spiraling in a clockwise direction and three flow paths spiraling in a counter-clockwise direction). That exemplary embodiment discloses three common inlet sections that introduce two spiral flow paths per inlet section which advantageously create fluid shear forces at each intersection to substantially reduce fluid pressure/hydrodynamic noise with a much lower risk of causing cavitation. For example, a first clockwise flow path [138] consists of inlet section [132], intermediate section comprised of recovery zones [158] and [160], and outlet section [140]. This clockwise flow path [138] intersects a first counter-clockwise flow path [148] at a first intersection [150], a second counter-clockwise flow path [152] at a second intersection [154], and a third counter-clockwise flow path [136] at a third intersection [156]. *See* page 12, line 19 through page 13, line 6.

To the contrary, Porter teaches a conventional fluid pressure reduction device with flow paths that neither delineate a spiral path, in any direction, nor "gradually diverge" as now claimed by the Applicants. The flow paths taught by the prior art are concentrically spaced with substantially parallel walls containing fixed right angle restrictions forcing the

flow path to assume a discretized or stepped progression from the perimeter to the hollow center of the fluid pressure reduction device. The flow paths taught within Porter are known to those skilled in the art as typical with respect to fluid pressure reduction devices and contain all of the detrimental effects of the prior art discussed in Applicants' pending application. *See* page 2, line 18 through page 4, line 12. As understood by those skilled in the art, when the abrupt contractions and expansions are used in liquid applications, fluid velocity abruptly accelerates producing corresponding abrupt, low pressure regions within the disk. These discrete, sharp changes in pressure can result in high pressure recovery that allows fluid pressure to drop below the liquid vapor pressure, which can lead to flashing and cavitation. While true that the concentric flow paths and abrupt restrictions have a lower cavitation potential than typical drilled holed fluid pressure reduction devices, the uniform width of the concentric grooves in cooperation with the abrupt restrictions of the referenced prior art prohibit the gradual pressure reductions and pressure recovery produced by Applicants invention. The teachings of Porter are wholly contrary to Applicants' invention, as now claimed.

Under Section 2131, the MPEP states: "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir 1987). Applicants respectfully submit that the spiral, continuous, diverging flow paths now claimed in present invention, are neither anticipated nor obvious in view of Porter. Therefore, Applicants submit that amended independent claim 32 and its associated dependent claims 33-36 are patentably distinct from the cited reference. Applicants respectfully submit that the amendments and remarks presented herein have placed the application in condition for allowance. As such, independent claim 32 and its

dependent claims 33-36, as well as independent claim 58, should now be allowed.

Reconsideration of the application is respectfully requested.


### Conclusion

It is submitted that the present application is in good and proper form for allowance. A favorable action on the part of the Examiner is respectfully solicited. If, in the opinion of the Examiner a telephone conference would expedite prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

MARSHALL, GERSTEIN & BORUN LLP

By:



Brent E. Matthias  
Reg. No.: 41,974  
Attorneys for Applicants  
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January 18, 2005

# **APPENDIX C**



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

## NOTICE OF ALLOWANCE AND FEE(S) DUE

04743 7590 04/20/2005  
MARSHALL, GERSTEIN & BORUN LLP  
233 S. WACKER DRIVE, SUITE 6300  
SEARS TOWER  
CHICAGO, IL 60606

RECEIVED

APR 25 2005

MARSHALL GERSTEIN

EXAMINER

FOX, JOHN C

ART UNIT PAPER NUMBER

3753

DATE MAILED: 04/20/2005

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/795,831	03/08/2004	Michael Wildie McCarty	06005/36687A	1286

TITLE OF INVENTION: FLUID PRESSURE REDUCTION DEVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1400	\$300	\$1700	07/20/2005

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

## HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/795,831	03/08/2004	Michael Wildie McCarty	06005/36687A	1286
04743	7590	04/20/2005	EXAMINER	
MARSHALL, GERSTEIN & BORUN LLP 233 S. WACKER DRIVE, SUITE 6300 SEARS TOWER CHICAGO, IL 60606			FOX, JOHN C	
			ART UNIT	PAPER NUMBER
			3753	

DATE MAILED: 04/20/2005

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571) 272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

<b>Notice of Allowability</b>	Application No.	Applicant(s)	
	10/795,831	MCCARTY ET AL.	
	Examiner	Art Unit	
	John Fox	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

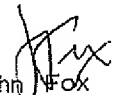
- ☒ This communication is responsive to the amendment of 2/28/2005.
2. ☒ The allowed claim(s) is/are 32-36 and 55.
3. ☒ The drawings filed on 08 March 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of the:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).  
\* Certified copies not received: \_\_\_\_\_

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.  
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached  
1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.  
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance             |
|   | 9. <input type="checkbox"/> Other _____   |

  
John Fox  
Primary Examiner  
Art Unit: 3753

Art Unit: 3753

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Cancel claims 48-54.

This application is in condition for allowance except for the presence of claims 48-54, drawn to an invention non-elected without traverse. Accordingly, claims 48-54 have been cancelled.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Fox whose telephone number is 571-272-4912. The examiner can normally be reached on Increased Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on 571-272-4930. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John Fox



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Primary Examiner  
Art Unit 3753